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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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	PETITION FEE		Application N	lumber	10/828,287
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Petition Fees unde	er 37 CFR 1.17(f):	Fee \$400	Fee Code 1	1462	
For petitions filed under	er:				
§ 1.53(e) - to accord a § 1.57(a) - to according	g a filing date.				
§ 1.182 – for decision § 1.183 – to suspend t	on a question not specifica	Illy provided for.			
§ 1.378(e) for reconsid	deration of decision on petit				n an expired patent.
§ 1.741(b) – to accord	a filing date to an applicati	-	ension of a patent to	ərm. 	
Petition Fees unde		Fee \$200	Fee code 1463	<b>;</b>	
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§1.14 - for access to a	in application. Her than all the inventors or	a person not the invent	or.		
§1.59 - for expungeme	ent of information.				
§1.103(a) - to suspend §1.136(b) - for review	d action in an application. of a request for extension o	of time when the provision	ons of section 1.136	S(a) are not availab	ole.
§1.295 - for review of a	refusal to publish a statutor	ry invention registration.			
§1.296 - to withdraw a issued.	request for publication of a	a statutory invention reg	istration filed on or	arter the date the h	otice of intent to publish
§1.377 – for review of	decision refusing to accept	t and record payment of	a maintenance fee	filed prior to expira	ation of a patent.
	owner requests for extension				
§ 5.12 – for expedited	handling of a foreign filing		·	•	
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Petition Fees under 3	37 CFR 1.17(h): F	ee \$130	Fee Code 1464		
For petitions filed under \$1.19(a) – to request of	er: documents in a form other t	than that provided in this	s part.		
§1.84 – for accepting of	color drawings or photograp	•	•		
§1.91 – for entry of a n §1.102(d) – to make a					
§1.138(c) – to express	ly abandon an application	to avoid publication.			
§1.313 – to withdraw a §1.314 – to defer issua	an application from issue. ance of a patent.				
					T 00 004
Name (Print/Type)	Carl I, Brundidge			o. (Attorney/Agent)	29,621
Signature			Date	January 27, 20	JUD

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

501.43790X00

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Daiki NAKATSUKA

Serial No.:

10/828,287

Filed:

April 21, 2004

For:

COMPUTER SYSTEM FOR ALLOCATING STORAGE AREA TO

COMPUTER BASED ON SECURITY LEVEL

### PETITION TO MAKE SPECIAL UNDER 37 CFR 1.102(d) and MPEP. §708.02, VIII

**MS Petition** 

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 January 27, 2005

Sir:

#### 1. Petition

Applicants hereby petition to make this application Special, in accordance with 37 CFR §1.102(d) and MPEP 708.02, VIII. The present invention is a new application filed in the United States Patent and Trademark Office on April 21, 2004 and as such has not received any examination by the Examiner.

#### 2. Claims

Applicants hereby represent that all the claims in the present application are directed to a single invention. If upon examination it is determined that all the claims presented are not directed to a single invention, Applicants will make an election without traverse as a prerequisite to the granting of special status.

3. Search

Applicants hereby submit that a pre-examination search, a copy of which is attached, has been made by a professional searcher.

The field of search covered:

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<u>Class Subclasses</u>

709 239

711 113, 114 and 163

713 150

The above subclasses represent areas deemed to contain subject matter of interest to one or more of the search features. Additionally, a computer database search was conducted on the USPTO systems EAST and WEST; a keyword search was conducted in Class 707, subclasses 9 and 10; Class 709, subclasses 223, 225, 227, 229, 238 and 250; Class 711, subclasses 112 and 162; and Class 713, subclasses 151, 152, 153 and 168; and a literature search was also conducted on the Internet for relevant non-patent documents and a search for foreign patent documents on the Espacenet and Delphion databases. Examiner Jack Lane in Class 711 (Art Unit 2188) was consulted in confirming the field of search.

#### 4. Copy of References

A listing of all references found by the professional searcher is provided by a Form PTO-1449 and copies of the references and the Form PTO-1449 are submitted as part of an Information Disclosure Statement (IDS) filed on October 6, 2004. A copy of said October 6, 2004 Information Disclosure Statement along with the Search Report is attached herewith without the references.

## 5. Detailed Discussion of the References and Distinctions Between the References and the Claims

Below is a discussion of the references uncovered by the search and cited in the IDS filed on October 6, 2004 (copy attached) that appear to be most closely related to the subject matter encompassed by the claims of the present application, and which discussion particularly points out how Applicants' claimed subject matter is distinguishable over those references. All other references uncovered by the search and cited in the IDS filed on October 6, 2004 (copy attached) are **not** treated in detail herein.

#### a. Detailed Discussion of the References

Sakai (U.S. Patent Application Publication No. 2004/0093524) shows IPsec processing apparatuses, which use an IPsec for implementing security on an Internet path in the case where two different centers communicate via the Internet; and an IPsec setting server apparatus, which manages IPsec settings of the IPsec processing apparatuses, in which the IPsec setting server apparatus includes means for collectively managing policies of the IPsec to be applied among the IPsec processing apparatuses. The distribution policy storage section (16) is referred to from the request processing section (15) and stores an IPsec policy necessary for determining a requested setting. The management table (17) is referred to and set from the request processing section (15) and stores information on respective kinds of SA communication requested to be set. See figures, summary and sections [0076]-[0080].

Sato (U.S. Patent Application Publication No. 2003/0158966) shows a storage area network system including storage device-containing storage subsystems, fiber

channel switches, and servers. Upon reception of the access request (command) from the server (100), the storage subsystem (102) judges, from information (command parameters) attached to the access request and information managed by the storage subsystem (102), whether access to any one of the storage control master device (12) and storage control replica devices (13) by the server (100) is allowed or not. The system includes a fiber channel switch (101) includes a plurality of connection ports (101a), a path control portion (101c), a processor (101d), and a network interface (101i). See figures, summary and sections [0051]-[0054].

Acharya et al (U.S. Patent Application Publication No. 2003/0140193) shows methods, apparatus and systems for virtualization of iSCSI storage. Storage area network (SAN) is composed of storage devices (104, 105), gateway (106) and hosts (101, 102, 103). Hosts talk iSCSI to the gateway. Gateways talk iSCSI to the devices. A SCSI (iSCSI) command addresses a logical unit number (LUN), specifies an offset and the number of blocks, to read and write including the starting block. Through IPSec, it supports different levels of security, simple authentication, authentication plus integrity of packet or full privacy. See figures and sections [0026]-[0037].

Kano et al (U.S. Patent Application Publication No. 2003/0163568) shows a storage system comprising, a storage apparatus; a management server for holding both a storage location of file data stored into the storage apparatus and management information used to manage an access condition; and a server apparatus for accepting an access request of the file data via a network from a computer by way of a first protocol, and for accessing the storage apparatus by way of a second protocol in response to the access request issued from the computer

based upon the management information. See figures, claims 1-5 and sections [0035]-[0039].

Dobberpuhl et al (U.S. Patent Number 6,754,718) shows a method apparatus and computer program product for providing access to host attribute information in a storage area network. The method and apparatus provides a second command being sent to the storage array. The second command is an attach command (390) which is used in configuration of the SAN (100). The attach command 390 is also a vendor unique SCSI command which identifies the available data paths which are accessible and visible to a user connecting to the SAN (100). The attach command (390) determines the visible paths that a user of the SAN can see. See figures and col.5, Ins.59+.

Yamakawa et al (U.S. Patent No. 6,738,877), Giniger et al (U.S. Patent No. 6,751,729), Kronenberg (U.S. Patent Application Publication No. 2002/0078227), Murty et al (U.S. Patent Application Publication No. 2003/0084290), Pham et al (U.S. Patent Application Publication No. 2003/0115447), Kitani et al (U.S. Patent Application No. 2003/0229690), and Plotkin et al (U.S. Patent Application Publication No. 2004/0153642) shows a computer systems managing security level in a internet protocol network.

#### b. Distinctions Between the References and the Claims

The present invention as recited in the claims is not taught or suggested by any of the above noted references whether taken individually or in combination with each other or in combination with any of the other references now of record.

The present invention as recited in the claims is directed to a computer and a

management computer wherein the computer system includes a computer, a storage system connected to the computer over a network a second computer connected to the computer and the storage system. According to the present invention, the second computer includes information about the storage system, selects, in response a request from the computer, the storage system related to the request based on the information and transmits a command to the selected storage system for creating a storage area for use by the computer based on the request of the computer. Further, according to the present invention, the storage system creates the storage area corresponding to the request of the computer in accordance with the command and force a creation completion notice to the second computer wherein after notice, the second compute notifies the computer of path information for storage area created by the storage system.

The management computer has a control section, a memory and an interface which connects it a network having a connection the computer and the storage system. As described above, the memory includes the information and the control section performs operations similar to those described above as being performed by the second computer.

The above described features of the present invention are not taught or suggested by the above described references or any of the other references of record whether taken individually or in combination with each other. Particularly, for example, the above described features of the present invention as recited in the claims are not taught or suggested by Sakai.

As described above, Sakai teaches an IPSec processing apparatus which uses an IPsec for implementing security on an internet path wherein two different

centers communicate via the internet and an IPsec setting server apparatus which manages IPsec settings of the IPsec processing apparatus in which the IPsec setting server apparatus includes for collectively monitoring policies of the IPsec to be applied among the IPsec processing apparatuses.

Sakai does not teach or suggest a computer system having first computer, a storage system and a second computer wherein the second computer includes memory which stores information about the storage system. Further, Sakai does not teach or suggest that the second computer selects, in response to a request from the computer the storage system corresponding to the request based on the information stored in the memory of the second computer. Still further, there is no teaching or suggestion in Sakai that the second computer transmits a command to the selected storage system for creating a storage area for use by the computer based on the request of the computer and that the storage system in response to the command from the second computer creates the storage area meeting the request of the computer and force creation completion notice to the second computer. The second computer upon receiving the creation completion notice notifies the computer of the information regarding the paths for the storage created by the storage system as per the request. These features are clearly not taught or suggested by Sakai. Thus, Applicants submit that the features of the present invention as recited in the claims are not anticipated by nor render obvious by the teachings of Sakai.

The above described deficiencies of Sakai are also evident in each of the other references of record. Therefore, combining the teachings of Sakai with one or more of the other references described above and the other references of record would still fail to teach or suggest the features of the present invention as recited in

the claims.

Therefore, based on the above, Applicants submit that the claims of the present application are patentable over the above described prior art and the other prior art of record.

## 6. Fee (37 C.F.R. 1.17(i))

The fee required by 37 C.F.R. § 1.17(i) is to be paid by:

[X] the Credit Card Payment Form (attached) for \$130.00.

[ ] charging Account \_\_\_\_\_ the sum of \$130.00.

A duplicate of this petition is attached.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (501.43790X00).

Respectfully submitted,

MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C.

Carl I. Brundidge

Registration No. 29,621

CIB/jdc Enclosures (703) 684-1120

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

oplicant(s): Daiki NAKATSUKA

Serial No.:

10/828,287

Filed:

April 21, 2004

For:

COMPUTER SYSTEM FOR ALLOCATING STORAGE AREA TO

COMPUTER BASED ON SECURITY LEVEL

# INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.97 & 1.98

**MS Amendment** 

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 October 6, 2004

Sir:

In the matter of the above-identified application, applicants are submitting herewith copies of the documents listed in the attached form equivalent to Form PTO-1449 for the Examiner's consideration.

This information disclosure statement is being submitted before the mailing date of a first office action on the merits.

Each of the documents listed on the attached form equivalent to Form PTO-1449 is in the English language.

It is respectfully requested that this information disclosure statement be considered by the Examiner.

Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus Deposit Account No. 01-2135 (501.43790X00) please credit any excess fees to such deposit account.

Respectfully submitted,

Carl I. Brundidge

Registration No. 29,621

CIB/jdc

(703) 312-6600

ANTONELLI, TERRY, STOUT & KRAUS, LLP

<b>FORM PTO-1449</b>	U.S. Department of
Commerce (Rev. 4/9	92) Patent and Trademark
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**EXAMINER** 

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

501.43790X00 10/828,287

APPLICANT
D. NAKATSUKA

FILING DATE
April 21, 2004

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U.S. PATENT DOCUMENTS													
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		6	7	3	8	8	7	7	5/04	Yamakawa et al			$\sim 1$
		6	7	5	1	7	2	9	6/04	Giniger et al		-6	
	-	6	7	5	4	7	1	8	6/04	Dobberpuhl et al		$\mathbb{C}\mathbb{Q}$	
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	2 0 0 3	0	1	5	8	9	6	6	8/03	Sato			
	2 0 0 3	0	1	6	3	5	6	8	8/03	Kano et al			
	2 0 0 3	0	2	2	9	6	9	0	12/03	Kitani et al			

EXAMINER: Initial if citation is considered, draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

**DATE CONSIDERED** 

(Form PTO-1449 [6-4])

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			"isc	CSI B	uildir	ng Blo	ocks 1	or IP	Stor	age	Netwo	rking", source(s):	SNIA IF	Storage Fo	rum, pp 1	1-12.	
			"Towards Securing information End-to-End: networked Storage Security Update and Best Practices", source(s): Hitachi, pp. 1-26.														
•			"Ga	ining	g Con	trol o	f Sec	urity	Patch	Ma	nagen	nent", source(s): N	licroso	ft, pp. 1-24.			
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September 2, 2004



Mr. Noboru Otsuka HITACHI LTD, INTELLECTUAL PROPERTY GROUP IP Development & Management Division, Patent Dept 4 292, Yoshida-cho, Totsuka-ku, Yokohama-shi Kanagawa 244-0817 Japan





RE: Petition-To-Make-Special Search

For: COMPUTER SYSTEM FOR ALLOCATING STORAGE AREA TO COMPUTER BASED ON SECURITY LEVEL

U.S. APPLICATION NO. 10/828287

Your Ref. No.: 340400021US01

Our Ref. No.: HIT 1119

#### Dear Mr. Otsuka:

We have completed the petition-to-make-special search at the U.S. Patent and Trademark Office regarding the above-identified invention. The field of search covered Class 709, subclass 239 (U.S. & Foreign); Class 711, subclasses 113 U.S. & Foreign), 114 (U.S. & Foreign) and 163 (U.S. & Foreign); and Class 713, subclass 150 (U.S. & Foreign). Additionally, a computer database search was conducted on the USPTO systems EAST and WEST; a keyword search was conducted in Class 707, subclasses 9 and 10; Class 709, subclasses 223, 225, 227, 229, 238 and 250; Class 711, subclasses 112 and 162; and Class 713, subclasses 151, 152, 153 and 168; and a literature search was also conducted on the Internet for relevant non-patent documents and a search for foreign patent documents on the Espacenet and Delphion databases. Examiner Jack Lane in Class 711 (Art Unit 2188) was consulted in confirming the field of search.

The search was directed towards a computer system for allocating storage area to computer based on security level. In particular, the search was directed towards claims 1-18 of U.S. Patent Application Number 10/828287. The claims describe a computer system comprising a computer, a storage system connected to the computer over a network, a second computer connected to the computer and the storage system including information about the storage system where the storage system meeting the request based on information and transmits a command, storage system creating the storage area meeting the request of the computer, and the second computer notifying the computer of path information. A management computer connected to a computer and a storage system comprising a control section; memory; an interface to be connected to a network; the memory including information indicating whether or not

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Mr. Noboru Otsuka September 2, 2004 Page Two

a device in the storage system to be connected to the network is capable of an IPSec process, a command for creating the storage area to interrelates to the device capable of the IPSec process based on the request. Additionally, a computer system comprises a second computer notifying the computer of address information in the network assigned to the device capable of IPSec process, and all the elements as further claimed in the disclosure provided.

Please note the enclosed documents listed in numerical order for convenience:

<u>Inventor(s)</u>				
Yamakawa et al.				
Giniger et al.				
Dobberpuhl et al.				

Published Patent Application	Inventor(s)
2002/0078227	Kronenberg
2003/0084290	Murty et al.
2003/0115447	Pham et al.
2003/0140193	Acharya et al.
2003/0158966	Sato*
2003/0163568	Kano et al.
2003/0229690	Kitani et al.*
2004/0093524	Sakai
2004/0153642	Plotkin et al.

<sup>\*</sup>Patents assigned to Hitachi

#### **Non-Patent Literature:**

"iSCSI for Storage Networking", source(s): SNIA IP Storage Forum

"iSCSI Building Blocks for IP Storage Networking", source(s): SNIA IP Storage Forum

"Towards Securing Information End-toEnd: networked Storage Security Update and Best Practices", source(s): Hitachi

"Gaining Control of Security Patch Management", source(s): Microsoft



Mr. Noboru Otsuka September 2, 2004 Page Three

## **Brief Description Of The Documents:**

- U.S. Patent Application Number 2004/0093524 (Sakai) shows an IPsec processing apparatuses, which use an IPsec for securing security on the Internet path in the case where different two centers communicate via the Internet; and an IPsec setting server apparatus, which manages IPsec settings of the IPsec processing apparatuses, in which the IPsec setting server apparatus includes means for collectively managing policies of the IPsec to be applied among the IPsec processing apparatuses. The distribution policy storage section (16) is referred to from the request processing section (15) and stores an IPsec policy necessary for determining a requested setting. The management table (17) is referred to and set from the request processing section (15) and stores information on respective kinds of SA communication requested to be set. See figures, summary and sections [0076]-[0080].
- U.S. Patent Application Number 2003/0158966 (Sato) shows a storage area network system including storage device-containing storage subsystems, fiber channel switches, and servers. Upon reception of the access request (command) from the server (100), the storage subsystem (102) judges, from information (command parameters) attached to the access request and information managed by the storage subsystem (102), whether access to any one of the storage control master device (12) and storage control replica devices (13) by the server (100) is allowed or not. The system includes a fiber channel switch (101) includes a plurality of connection ports (101a), a path control portion (101c), a processor (101d), and a network interface (101i). See figures, summary and sections [0051]-[0054].
- U.S. Patent Application Number 2003/0140193 (Acharya et al.) shows methods, apparatus and systems for virtualization of iSCSI storage. Storage area network (SAN) is composed of storage devices (104, 105), gateway (106) and hosts (101, 102, 103). Hosts talk iSCSI to the gateway. Gateways talk iSCSI to the devices. A SCSI (iSCSI) command addresses a logical unit number (LUN), specifies an offset and the number of blocks, to read and write including the starting block. Through IPSec, it supports different levels of security, simple authentication, authentication plus integrity of packet or full privacy. See figures and sections [0026]-[0037].
- U.S. Patent Application Number 2003/0163568 (Kano et al.) shows a storage system comprising, a storage apparatus; a management server for holding both a storage location of file data stored into the storage apparatus and management information used to manage an access condition; and a server apparatus for accepting an access request of the file data via a network from a computer by way of a first protocol, and for accessing the storage apparatus by way of a second protocol in response to the access request issued from the computer based upon the management information. See figures, claims 1-5 and sections [0035]-[0039].



Mr. Noboru Otsuka September 2, 2004 Page Four

U.S. Patent Number 6,754,718 (Dobberpuhl, et al.) shows a method apparatus and computer program product for providing access to host attribute information in a storage area network. The method and apparatus provides a second command being sent to the storage array. The second command is an attach command (390) which is used in configuration of the SAN (100). The attach command 390 is also a vendor unique SCSI command which identifies the available data paths which are accessible and visible to a user connecting to the SAN (100). The attach command (390) determines the visible paths that a user of the SAN can see. See figures and col.5, lns.59+.

U.S. Patent Numbers 6,738,877 (Yamakawa et al.), 6,751,729 (Giniger et al.), U.S. Patent Application Numbers 2002/0078227 (Kronenberg), 2003/0084290 (Murty et al.), 2003/0115447 (Pham et al.), 2003/0229690 (Kitani et al.), and 2004/0153642 (Plotkin et al.) shows a computer systems managing security level in a internet protocol network.

While the above-noted Examiner was consulted and confirmed our opinion that the most relevant areas for this invention were reviewed, further searching may uncover additional patents. NOTE: The field of search included the most pertinent areas identified by the Examiner and our office as containing relevant patents.

Enclosed are copies of the cited documents and our invoice for services rendered and disbursements for this matter.

As always, if you have any questions regarding this search, please do not hesitate to call us at (703) 413-5000.

Very truly yours,

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Enclosure

